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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,271	03/25/2005	Gunther Brandenburg	234700	2137

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EXAMINER	
MARINI, MATTHEW G	

ART UNIT	PAPER NUMBER
2854	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/529,271	BRANDENBURG ET AL.	
	Examiner	Art Unit	
	Matthew G. Marini	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/17/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The examiner acknowledges the amendment to the claims 12, 13, 18, and 21 as clarifying the phrases "cut register". Therefore, the examiner withdraws the claim objection to claims 12-22.

Regarding the 35 U.S.C. 112 second paragraph rejection to claim 16, the examiner acknowledges the amendment to the claim 16 clarifies the set point value as being a second set point value, therefore the examiner withdraws the 35 U.S.C. 112 second paragraph rejection to claim 16.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-14, 16, 18, 19, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanlan (4,361,260).

As to Claim 12, Hanlan teaches in Fig. 1 structure capable of performing a method for controlling a cut register of a web-fed rotary press, Col. 4 lines 22-23, the cut register, 34, representing placement of cuts on a web, 23, comprising: guiding a web, 23, Col. 4 lines 40-44, of the printing press in which indicia has been printed thereon, to a cross-cutting device, 31, via pulling units, 25, 26, 27, and 28 with adjustable leads; and changing a circumferential speed, Col. 12 lines 51-66, by controlling the motors, 35 and 29, of at least one of the pulling units, 25-27, to adjust the cut register.

As to Claim 13, Hanlan teaches in Fig. 1 a method where the step of changing includes: detecting a first actual^{1a} value of the cut register using a first cut-register sensor, 49; feeding the detected first actual value of the cut register to a controller, 41, Col. 7 lines 22-32; comparing, by the controller, 41, the detected actual value of the cut register, from sensor 49, of the cut register, 34, with a cut-register set point value representing a predetermined desired placement of a cut on the web, seen as mark , 34; adjusting, by the controller, 41, a motor, 35, of said at least one pulling unit, 25 and 26, to change the circumferential speed, Col. 12 lines 42-50.

As to Claim 14, Hanlan teaches in Fig. 1 a method including: providing a second cut-register sensor, 45, positioned, and as structure is recited, at a second pulling unit, 25 and 26, upstream of said at least one pulling unit, 26 and 27; detecting a second actual value of the cut register, 34, using the second cut-register sensor, 45; deriving a differentiating proportion from the first and second actual values of the cut register, speed sensed by sensor, 49, and mark, 34, sensed by sensor, 45; and applying, by the controller, 41, a feed forward control based on the differentiating proportion, outlined in Fig. 2.

As to Claim 16, Hanlan teaches a method further including: supplying by the controller, 41, to a second pulling unit, 27 and 28, downstream of said pulling unit, 25 and 26, a second set point value, gained by tachometer, 42,, for controlling a lead of the second pulling unit, 27 and 28, via motor, 29, Col. 11 lines 56-61.

As to Claim 18, Hanlan teaches in Fig. 1, an apparatus for controlling a cut register of a web-fed rotary press having a web, 23, guided from a last printing unit, not

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shown but can be seen in Col. 4 lines 22-23, to a cross cutting device, 31, via a plurality of pulling units, 25-28, the cut register representing the placement of cuts on the web, 23, comprising: a controller, 41, connected to a motor, 29 and 35, of at least one of the pulling units, 25-28; and a first cut-register sensor, 42, disposed to detect a first actual value of the cut register, of the speed of the web, 23, and feed the detected first actual value to the controller, 41, Col. 5 lines 3-9, wherein the controller, 41, controls the motor, 29, to adjust a speed of said at least one pulling unit, 27 and 29, based on the first actual value of the cut register.

As to Claim 19, Hanlan teaches in Fig. 1, an apparatus further including a second cut-register sensor, 45, positioned, and as structure is recited, at a second pulling unit, 25 and 26, upstream of said at least one pulling unit, 26 and 27; the second sensor, 45, detecting a second actual value of the cut register, 34, using the second cut-register sensor, 45; deriving a differentiating proportion from the first and second actual values of the cut register, speed sensed by sensor, 49, and mark, 34, sensed by sensor, 45; the controller, 41, applying a feed forward control based on the differentiating proportion, outlined in Fig. 2.

As to Claim 21, Hanlan teaches in Fig. 1, an apparatus where the controller, 41, is further connected to a motor, 29, of a second pulling unit, 27 and 28, downstream of said at least one pulling unit, 25 and 26, and provides to the second pulling unit, 27 and 28, a set point value gained from mark, 34 representing a predetermined desired placement of a cut of a web, 23, sensed by sensor, 45, for controlling a lead of the second pulling unit, 27 and 28, via motor, 29, depicted in Fig. 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15, 17, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanlan (4,361,260) in view of Jackson (5,568,767).

As to Claims 15 and 20, Hanlan teaches all that is claimed in the above rejection of claims 13 and 18 except where a computing unit computes an actual state of the cut register based on a mathematical model using statistical trends from pervious samples deriving a differentiating proportion from the actual state of the cut register and applying, by the controller, feed forward control based on the differentiating proportion. Jackson teaches a computing unit, 3, that computes an actual state of the cut register based on a mathematical model using statistical trends from pervious samples, Col. 4 lines 42-44; deriving a differentiating proportion from the actual state of the cut register; and applying, by the controller, feed forward control based on the differentiating proportion, Col. 50-67. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Hanlan to include the computer, 3, to calculate a statistical trend because it improves the performance of cutting the web when a statistical trend can be determined from previous samples, Col. 4 lines 4 lines 40-49.

As to Claims 17 and 22, Hanlan teaches all that is claimed in the above rejection of claims 13 and 18, except where the controller controls said at least one pulling unit to

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compensate effect for a counteracting effect by forces of the web on a torque of the motor of said at least one pulling unit. Jackson teaches a controller, 3, that controls said at least one pulling unit, similar in structure to the pulling units of Hanlan to compensate effect for a counteracting effect by forces of the web on a torque of the motor, 5, of said at least one pulling unit, 6, in Col. 3 line 61-63. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Hanlan to include the controller of Jackson because it allows for the web to have constant tension, resulting in a much faster response time for correcting the cut register, Col. 5 lines 1-6.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Marini whose telephone number is (571)-272-2676. The examiner can normally be reached on Monday-Friday 8:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew Marini

03/17/07



Ren Yan
Primary Examiner